

## REMARKS

The nonfinal Office Action mailed on September 19, 2007 and the comments therein have been carefully considered. Applicants appreciate the Examiner's consideration of Applicants' prior remarks and acknowledgement of allowable subject matter.

### I. Status of Claims

Applicants especially appreciate the Examiner's careful review of the assay and the mistake in the description of the antibodies used in the claimed assay. Applicants have amended claim 18 to appropriately identify the antibodies as those having the same epitope as mAb 528 or mAb R.1 as described in the specification, for example on page 33.

Regarding the 35 USC §112 written description and enablement rejection based on the availability of mAb 528 and mAb R.1, Applicants have attached current product listings for both antibodies from commercial resources (Attachment I). Applicants submit that both antibodies are commercially available from several sources, including Santa Cruz and Lab Vision Corporation.

Finally, Applicants have amended claim 18 such that "soluble epidermal growth factor receptor" is used consistently throughout the claims. As described in the specification and as known in the art, epidermal growth factor receptor (EGFR) is also known as ErbB1. Applicants submit that the amendment does not add new matter or change the context of the claims but simply makes the terminology consistent throughout the claims.

### II. Conclusion

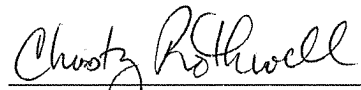
Applicants respectfully submit that the claims, as amended, are in a condition for allowance. Accordingly, reconsideration and allowance of the claims are respectfully requested.

In addition, Applicants respectfully request notice of entry of the substitute specification filed June 25, 2007.

The Commissioner is hereby authorized to charge Deposit Account No. 03-2026 for any fees associated with this amendment or credit any overpayments.

Applicants would appreciate a telephone call to the undersigned attorney of record should the Examiner have any questions or comments with respect to this response for purposes of efficiently resolving same.

Respectfully submitted,

By   
\_\_\_\_\_  
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Pittsburgh, PA 15222  
(412) 297-4705

## **Attachment I**

current product listings for mAb 528 and mAb R.1 from commercial resources



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home » Membrane Receptors » EGFR Antibody / EGFR Antibodies » EGFR (R-1): sc-101

EGFR (R-1): sc-101

- mouse monoclonal IgG2b; 200 µg/ml
- cell surface domain of EGF receptor
- recommended for detection of EGF receptor of human origin by IP, IF and FCM
- antagonist of EGF stimulated receptor tyrosine kinase activity
- agarose conjugate for IP studies, sc-101 AC, 500 µg/0.25 ml agarose
- fluorescein conjugate for FCM, sc-101 FITC, 100 tests
- Alexa Fluor® 405 (sc-101 AF405), Alexa Fluor® 488 (sc-101 AF488) and Alexa Fluor® 647 (sc-101 AF647) conjugates for FCM or immunofluorescence; 100 µg/2 ml

Additional EGFR Antibodies ...

Product Citations

Recommended Support Products for:

IP

IF

FCM

siRNA Gene Silencers

EGFR (R-1): sc-101 is suitable for use as a control antibody for the following siRNAs. **NOTE! Use this section to purchase siRNAs. To order antibody products, please use ordering module at the top right of this page.**

PRODUCT NAME	CATALOG #	UNIT	PRICE	QTY	Buy siRNAs	
EGFR siRNA (h)	sc-29301	50-100 transfections	\$241	<input type="text"/>	<input type="button" value="Buy"/>	<input type="button" value="Add to Wishlist"/>
EGFR siRNA (h2)	sc-44340	50-100 transfections	\$241	<input type="text"/>	<input type="button" value="Buy"/>	<input type="button" value="Add to Wishlist"/>

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siRNA Support Products

EGFR (R-1) Product Citations

Catalog #	Price	Qty	Wish List
sc-101	\$248	<input type="text"/>	<input type="checkbox"/>
sc-101 AC	\$297	<input type="text"/>	<input type="checkbox"/>
sc-101 AF405	\$310	<input type="text"/>	<input type="checkbox"/>
sc-101 AF488	\$310	<input type="text"/>	<input type="checkbox"/>
sc-101 AF647	\$310	<input type="text"/>	<input type="checkbox"/>
sc-101 FITC	\$278	<input type="text"/>	<input type="checkbox"/>
		<input type="button" value="Buy"/>	<input type="button" value="Add"/>

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EGFR (R-1) Data  
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EGFR (R-1): sc-101. Immunofluorescence staining of methanol-fixed A-431.



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See how others have used EGFR (R-1) antibody: sc-101 and or EGFR (R-1) antibody conjugates.

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Kleiner S *et al.* 2007. Induction of uPA gene expression by the blockage of E-cadherin via Src- and Shc-dependent Erk signaling. *FEBS J.* 274(1): 227-240. [View PubMed Entry](#)

Lund CV *et al.* 2005. Zinc finger transcription factors designed for bispecific coregulation of ErbB2 and ErbB3 receptors: insights into ErbB receptor biology. *Mol. Cell. Biol.* 25(20): 9082-9091. [View PubMed Entry](#)

He, Y.Y. *et al.* 2003. Epidermal growth factor receptor down-regulation induced by UVA in human keratinocytes does not require the receptor kinase activity. *J. Biol. Chem.* 278: 42457-42465. [View PubMed Entry](#)

Hanke, S. *et al.* 2001. Cross talk between beta-adrenergic and bradykinin B(2) receptors results in cooperative regulation of cyclic AMP accumulation and mitogen-activated protein kinase activity. *Mol. Cell. Biol.* 21: 8452-8460. [View PubMed Entry](#)

Arcaro, A. *et al.* 2000. Class II Phosphoinositide 3-Kinases Are Downstream Targets of Activated Polypeptide Growth Factor Receptors. *Mol. Cell. Biol.* 20: 3817-3830. [View PubMed Entry](#)

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EGFR (528): sc-120

- mouse monoclonal IgG2a; 200 µg/ml
- cell surface epitope of EGF receptor
- recommended for detection of EGF receptor of human origin by IP, IF and FCM
- inhibits binding of EGF to EGF receptor
- fluorescein (sc-120 FITC) and phycoerythrin (sc-120 PE) conjugates for FCM, 100 tests
- agarose conjugate for IP studies, sc-120 AC, 500 µg/0.25 ml agarose

Additional EGFR Antibodies ...

Product Citations

Recommended Support Products for:

IP

IF

FCM

siRNA Gene Silencers

EGFR (528): sc-120 is suitable for use as a control antibody for the following siRNAs. **NOTE! Use this section to purchase siRNAs. To order antibody products, please use ordering module at the top right of this page.**

PRODUCT NAME	CATALOG #	UNIT	PRICE	QTY	Buy siRNAs	
EGFR siRNA (h)	sc-29301	50-100 transfections	\$241	<input type="text"/>	<input type="button" value="Buy"/>	<input type="button" value="Add to Wishlist"/>
EGFR siRNA (h2)	sc-44340	50-100 transfections	\$241	<input type="text"/>	<input type="button" value="Buy"/>	<input type="button" value="Add to Wishlist"/>

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siRNA Support Products

EGFR (528) Product Citations

See how others have used EGFR (528) antibody: sc-120 and or EGFR (528) antibody conjugates.

displaying 1 - 5 of 40 results : < next 5 citations >

Ning, Y. *et al.* 2007. Activated epidermal growth factor receptor induces integrin alpha2 internalization via caveolae/raft-dependent endocytic pathway. *J. Biol. Chem.* 282: 6380-6387. [View PubMed Entry](#)

Stern, K.A. *et al.* 2007. Epidermal Growth Factor Receptor Fate Is Controlled by Hrs Tyrosine Phosphorylation Sites That Regulate Hrs Degradation. *Mol. Cell. Biol.* 27(3): 888-898. [View PubMed Entry](#)

Choi, S.H. *et al.* 2007. EGF-independent activation of cell-surface EGF receptors harboring mutations found in gefitinib-sensitive lung cancer. *Oncogene.* 26: 1567-1576. [View PubMed Entry](#)

Salonen, T. *et al.* 2006 . Inhibition of classical PKC isoenzymes downregulates STAT1 activation and iNOS expression in LPS-treated murine J774 macrophages. *Br J Pharmacol.* 147: 790-799. [View PubMed Entry](#)

Johannessen LE *et al.* 2006. Activation of the epidermal growth factor (EGF) receptor induces formation of EGF receptor- and Grb2-containing clathrin-coated pits. *Mol. Cell. Biol.* 26(2):

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sc-120 AC	\$297	<input type="text"/>	<input type="button" value="Add"/>
sc-120 FITC	\$278	<input type="text"/>	<input type="button" value="Add"/>
sc-120 PE	\$289	<input type="text"/>	<input type="button" value="Add"/>

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EGFR (528) Data  
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EGFR (528) PE: sc-120 PE FCM analysis of EGF-induced A431



EGFR siRNA (h): sc-29301 Immunofluorescence staining of methanol-fixed, control HeLa

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389-401. [View PubMed Entry](#)



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**Antibodies****Epidermal Growth Factor Receptor / EGFR Ab-1**

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[Compare different antibodies against Epidermal Growth Factor Receptor.](#)

Mouse Monoclonal Antibody

**Description:** EGFR is type I receptor tyrosine kinase with sequence homology to erbB-1, -2, -3 -4 or HER-1, -2, -3 -4. It binds to Epidermal Growth Factor (EGF), Transforming Growth Factor- $\alpha$  (TGF- $\alpha$ ), Heparin-binding EGF (HB-EGF), amphiregulin, betacellulin and epiregulin. EGFR is overexpressed in tumors of breast, brain, bladder, lung, gastric, head & neck, esophagus, cervix, vulva, ovary, and endometrium. It is predominantly present in squamous cell carcinomas.

**Comments:** Ab-1 blocks EGF/TGF $\alpha$  induced activation of EGFR. It also blocks tumor growth in vivo. It has no effect on tyrosine kinase activity of the receptor. It inhibits the binding of Ab-2.

**Epitope:** Extracellular domain

**Clone Designation:** 528

**Immunogen:** Purified EGFR from A431 cells.

**Positive Control:** A431 cells.

**Molecular Weight:** 170kDa (wild type) and 145kDa (vIII variant)

**Species reactivity:** Human and Dog. Does not react with mouse & rat. Others-not known.

**Cellular Localization:** Cell membrane

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### Antibodies

#### Epidermal Growth Factor Receptor / EGFR Ab-3

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Mouse Monoclonal Antibody

**Description:** EGFR is type I receptor tyrosine kinase with sequence homology to erbB-1, -2, -3 -4 or HER-1, -2, -3 -4. It binds to Epidermal Growth Factor (EGF), Transforming Growth Factor- $\alpha$  (TGF- $\alpha$ ), Heparin-binding EGF (HB-EGF), amphiregulin, betacellulin and epiregulin. EGFR is overexpressed in tumors of breast, brain, bladder, lung, gastric, head & neck, esophagus, cervix, vulva, ovary, and endometrium. It is predominantly present in squamous cell carcinomas.

**Comments:** Ab-3 does not interfere with the binding of EGF to EGFR. It is particularly well suited for immunoprecipitating the unoccupied as well as the occupied EGFR.

**Epitope:** aa 6-273

**Clone Designation:** EGFR.1

**Immunogen:** A431 human epidermoid cells.

**Positive Control:** A431 cells express only the intact and not the vIII variant of EGFR. HC2 20 d2 cells express the vIII variant. In normal breast, ducts and lobules show diffuse cytoplasmic staining.

**Molecular Weight:** 170kDa (wild type)

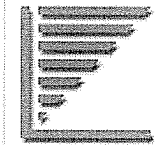
**Species reactivity:** Human and Horse. Does not react with mouse. Others-not known.

**Cellular Localization:** Cell membrane



#### FEATURED PRODUCT

MyoD1 Ab-2  
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( Purified Ab without BSA and Azide)
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( 1.0ml at 200ug/ml)  
( Purified Ab with BSA and Azide)
- ☐ Cat. # **MS-311 - P1**  
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